



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,505	08/16/2001	Steven I. Ross	1280.2002-001	3682

21005 7590 10/22/2004

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

EXAMINER

WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
----------	--------------

2655

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,505

Applicant(s)

ROSS ET AL.

Examiner

James S. Wozniak

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/16/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the office action from 5/14/2004, the applicant has submitted an amendment, filed 8/2/2004, amending claims 1, 6, 8, 15, and 20 for clerical purposes, while arguing to traverse the art rejection based on the limitation regarding “evaluating the plurality of contexts for speech enabled applications based upon an access characteristic” (*Amendment, Page 6*). Applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments.

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to **Claims 1, 8, and 15** the applicant argues that Balakrishnan (*U.S. Patent: 6,233,559*) fails to teach or fairly suggest: “evaluating a plurality of contexts for speech enabled applications based upon an access characteristic” (*Amendment, Page 6*), however Balakrishnan teaches context analysis, utilizing an arbitrator, that is based on application focus (*Col. 4, Lines 38-67*). This application focus characteristic is a functional equivalent of the access characteristic as claimed because an application context state, used to identify an application towards which a speech command is directed, is based on the characteristic of whether that

application is currently being accessed (in-focus) or not being accessed in a desktop background (out-of-focus). By determining a focus state, the arbitrator taught by Balakrishnan assigns a higher priority to an in-focus or current application and a lower priority to an out-of-focus application for receiving a speech command.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (*i.e., evaluating the contexts of all system applications whether the application is running or not, Amendment, Page 6*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, since Balakrishnan teaches a focus state for use in determining an application context for identifying an application towards which a speech command is directed, the rejection of Claims 1, 8, and 15 is maintained.

Claims 2-7, 9-14, and 16-21 are argued as further limiting their parent claims (*Amendment, Pages 6-7*). Thus, since the rejection of claims 1, 8, and 15 is maintained, Claims 2-7, 9-14, and 16-21 remain rejected.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-6, 8-13, and 15-20** are rejected under 35 U.S.C. 102(e) as being anticipated by Balakrishnan (*U.S. Patent: 6,233,559*).

With respect to **Claims 1, 8, and 15**, Balakrishnan discloses:

A method, device, and computer useable medium (*Col. 5, Lines 41-55*) for determining a speech-enabled application to receive a spoken utterance in a multi-context speech enabled environment comprising the steps of:

Evaluating a plurality of contexts for speech-enabled applications based upon an access characteristic (*context-dependent arbitrator that gives higher speech command priority to an in-focus application, except for commands such as "start" or "open," which would be directed to an out-of-focus application, Col. 4, Lines 38-67*);

Receiving a representation of a spoken utterance (*digitizing a speech input from a microphone and extracting features, Col. 4, Lines 18-21*); and

Directing the representation of the spoken utterance to a selected speech enabled application based upon results of the step of evaluating the contexts (*directing a speech command to a particular application based upon a confidence level relating to context, Col. 4, Lines 52-58*).

With respect to **Claims 2, 9, and 16**, Balakrishnan recites:

Prior to evaluating the contexts, a step of creating the contexts for the speech enabled applications in the speech-enabled environment (*created contexts based upon a focus state of a speech enabled application (foreground or background) utilized by an arbitrator to*

appropriately direct a speech command, Col. 4, Lines 52-57. Furthermore, in order for the arbitrator to utilize the contexts, it would be inherent that there must have been some prior step of context creation to define the context states (foreground and background)).

With respect to **Claims 3, 10, and 17**, Balakrishnan discloses:

Identifying each context based on a persistent grammar (*vocabulary that would be valid for all context states such as "quit," Col. 4, Line 62*), a foreground grammar (*vocabulary appropriate when a command would be active, such as edit, that would be directed to an application in the foreground, Col. 4, Lines 52-67*), or a background grammar (*vocabulary that would be associated with a background application such as "start" or "open," Col. 4, Lines 45-51*) for each speech enabled application,

Balakrishnan further discloses a context-dependent arbitrator capable of distinguishing between different types of commands to identify a particular focus state and determining a confidence level indicator, based upon the focus state, in order to distribute a speech command to an appropriate application.

With respect to **Claims 4, 11, and 18**, Balakrishnan discloses:

The step of evaluating contexts comprises prioritizing the contexts based on the access characteristic (*context-dependent arbitrator that gives priority to an application based upon a foreground or background focus state, Col. 4, Lines 52-58*).

With respect to **Claims 5, 12, and 19**, Balakrishnan recites:

The access characteristic is based on recency of relevant access to the context (*arbitrator that assigns a higher confidence score to an active and most current application in a foreground context state, Col. 4, Lines 52-58*).

With respect to **Claims 6, 13, and 20**, Balakrishnan discloses:

The step of directing the representation of the spoken utterance to the one of the contexts comprises using a grammar to identify and select a context of the selected speech enabled application (*application-specific vocabularies, which define acceptable commands, Col. 4, Lines 1-17, that enable a context-dependent arbitrator to identify and direct a speech command to a particular application in a foreground or background context, Col. 4, Lines 38-67*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 7, 14, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Balakrishnan.

With respect to **Claims 7, 14, and 21**, Balakrishnan teaches the application specific vocabularies (grammars), which determine acceptable commands, that enable a context-dependent arbitrator to identify and direct a speech command to a particular application in a foreground or background context, as applied to Claims 6, 13, and 20. Balakrishnan does not teach the use of a Backus Naur form grammar, however, it would have been an obvious matter of design choice to utilize a Backus Naur grammar to define acceptable speech commands for a particular application context, since the applicant has not disclosed that utilizing a Backus Naur

grammar form is for any particular purpose and it appears that speech commands could be sufficiently identified as being associated with a particular application context with an alternate grammar form.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

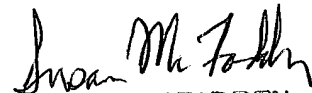
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669 and email is James.Wozniak@uspto.gov. The examiner can normally be reached on Mondays-Fridays, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached at (703) 305-4827. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

James S. Wozniak
9/2/2004


SUSAN MCFADDEN
PRIMARY EXAMINER